Polrep #1
Louisa Mine site
(Virginia Vermiculite Ltd.)
14093 Louisa Road
Route 22, P.O. Box 70
Louisa, VA 23093

Attn: RRC

Event: Removal Assessment

I. Situation: 10/19/00

A. Since late 1999, The Virginia Vermiculite Mine in Louisa was one of the 24 sites in Region 3 that were under investigation by the EPA national task force resulting from the W. R. Grace mine in Libby, Montana and the asbestos exposure from its operations over the years. OSC Jarvala visited the Louisa facility in early 2000 to meet the manager, tour the facility and arrange for sampling in the future.

B. In August, the Mine Safety and Health Administration (MSHA), in response to an anonymous complaint allegedly from site employees, conducted a surprise sampling event at the Louisa mine, and after analysis of the samples reported high levels of asbestos fibers in several bulk samples, as well as positive fibre results from air samples taken from various locations in the workplace. Based on these sample results, MSHA was quoted in news articles as being concerned with worker safety and off site impacts from operations. MSHA also requested support from EPA during a phone call to the RA on 10/6/00. It should be noted that all previous sampling at this facility by MSHA and the facility itself resulted in non detectable levels of asbestos fibers.

II. Actions Taken:

A. OSC Mike Zickler and Civil Investigator Larry Richardson conducted a windshield survey of the site on 10/11-12/00. They met with the plant manager, Mr. [redacted] and his consultant, Mr. [redacted], and were provided with a thorough tour of the facility including past and current mining areas and the entire processing facility. A site access agreement was signed by Mr. [redacted]. The OSC also toured the area surrounding the facility to evaluate locations to sample for potential off site migration of asbestos-contaminated particulates. No employees were interviewed during this visit, although the manager extended full cooperation and will arrange for it at any time in the future.

B. An overflight and historical photo analysis was requested from EPIC on 10/5, and the overflight was conducted on 10/10/00. A full report from EPIC is pending.

C. A local contractor, Mr. [redacted], was contacted by phone on 10/11 and requested to provide EPA with any information he had on sites he has hauled waste ore to in the past. He agreed to comply with any letter we send him.

D. ERT has ben contacted to provide support in the development and execution of a sampling plan for this site.

E. Public Affairs support has been provided by Lena Kim and Ruth Wuenschel.

III. Future Plans:

A. OSC Zickler will coordinate with EPA HQ and ERT to develop a sampling plan that is consistent with other regional investigations and designed to result in representative samples and accurate test results to determine if any off site migration of asbestos contamination has occurred. MSHA is planning to sample the mine again within a month, and the OSC has discussed the possibility of a joint sampling date with them. The OSC sampling will include nearby residents, one of whom, Mr. [redacted], has already contacted the OSC and requested his home be included.

B. Larry Richardson is preparing 104 letters to the facility and the private hauler to obtain additional information on locations the plant product or waste material may have been distributed to.

C. Case pends.

Mike Zickler, OSC
US EPA Region III
Philadelphia, PA 19103

Polrep #2
Louisa Mine site
(Virginia Vermiculite Ltd.)
14093 Louisa Road
Route 22, P.O. Box 70
Louisa, VA 23093

Attn: RRC

Event: Removal Assessment

I. Situation: 12/8/00

A. Since the last polrep, OSC has had discussions with MSHA Celeste Monforton and EPA Rebecca Hamner to coordinate federal actions at this site. OSC has also coordinated with Region 8 OSC Duc Nguyen on sampling plan development and Toxicologist Chris Weiss on sampling and analytical protocols to be followed.

B. OSC received an email on 12/8 from one of the residents nearest the mine, stating a recent chest Xray has revealed a "negative result, possible big problem but in an early stage". This information will be passed on to the ATSDR for evaluation.

II. Actions Taken:

A. OSC Mike Zickler, Civil Investigator Larry Richardson and START [redacted] conducted a visit to the site area on 11/27-28/00. We met with several property owners to inspect their homes and make plans for sampling efforts. The property owners are also involved in the Green Spring National Historic District, and implied that future litigation is likely over the continued existence of the mining operations, regardless of the outcome of EPA and MSHA studies. We also met with [redacted], one of the waste haulers, who described his involvement in transporting waste material to various locations. He showed us several of the locations he had hauled to, including the County landfill, his driveway and several others. We also met with the Louisa County Public Works Director, who provided copies of analytical results the County received from their consulting engineers, indicating non detection of asbestos in the material they had received from the landfill. The railroad siding that the mine uses to load bulk product for shipment was also inspected.

B. An overflight and historical photo summary on compact discs and hard copy was received from EPIC on 11/21/00.

C. No 104 letters were sent out due to a concern from EPA HQ regarding agency consistency on the vermiculite sites nationally.

D. A sampling event was conducted on 12/4-6/00. A representative of VVM, [redacted] (for spillage from the trucks hauling from the mine to the processing plant), from the tailings on the driveway to [redacted], from a public road (Rt. 617) within the same geological formation but up wind of the mine, as background for road soil, and from the railroad siding. One of the samples from the siding was from a vegetated area, which according to the mine manager was used to discard any excess material emptied from the rail cars after they arrived at the siding from other locations, so that sample may not be representative of the VVM product.

III. Future Plans:

A. Samples are being sent to EMSL lab in Westmont, NJ for analysis. The method will be coordinated with Region 8 for consistency with their established protocols. MSHA is planning to sample the mine again within a month, and the OSC has discussed the possibility of a joint sampling date with them. Upon receipt of the analytical results, a decision will be made on what additional sampling might be required.

B. A FOIA letter was received by the OSC on 12/7/00 from attorney [redacted], and that request will be processed asap.

C. Case pends.

Mike Zickler, OSC
US EPA Region III
Philadelphia, PA 19103

Polrep #3
Louisa Mine site
(Virginia Vermiculite Ltd.)
14093 Louisa Road
Route 22, P.O. Box 70
Louisa, VA 23093

Attn: RRC

Event: Removal Assessment

I. Situation: 1/10/01

A. Since late 1999, the Virginia Vermiculite Mine in Louisa, VA was one of the 24 sites in Region 3 that were under investigation by the EPA national task force resulting from the W. R. Grace mine in Libby, Montana and the asbestos exposure from its operations over the years. OSC Jarvala visited the Louisa facility in early 2000 to meet the manager, tour the facility and arrange for sampling in the future. In August 2000, the Mine Safety and Health Administration (MSHA), in response to an anonymous complaint allegedly from site employees, conducted a surprise sampling event at the Louisa mine, and after analysis of the samples reported high levels of asbestos fibers in several bulk samples, as well as positive fiber results from air samples taken from various locations in the workplace. Based on these sample results, MSHA was quoted in news articles as being concerned with worker safety and off site impacts from operations. MSHA also requested support from EPA during a phone call to the RA on 10/6/00. It should be noted that all previous sampling at this facility by MSHA and the facility itself resulted in non detectable levels of asbestos fibers.

II. Actions Taken:

A. Pursuant to a removal assessment conducted by OSC Zickler and the START contractor, and in conjunction with the protocols developed by Region 8 for evaluating off site impacts, samples of dust from nearby residential homes were obtained to screen for tremolite asbestos contamination. In addition, bulk samples from the road just outside the active mining area and at several waste disposal locations, and representative background dust and road samples were collecteed. Analytical results from those samples, which were taken on 12/4-6/00, have been received from the EMSL lab. They indicate non detection of asbestos fibers in any of the samples, based on PCM and TEM analyses. These results have been provided to the mine operator, MSHA, Louisa County officials and the individual residents.

B. A response to the FOIA request was provided to the FOIA coordinator for distribution. The analytical results mentioned above were not available at the time of the response, but have since been provided to the FOIA coordinator.

C. MSHA has taken samples from inside certain process locations, and from several individual plant employees/operators. Analytical results are pending.

III. Future Plans:

A. Based on the analytical results recently obtained from EMSL, no further sampling is currently planned by the OSC. Because no evidence exists of asbestos fibers accumulating outside the mine boundaries, there is no rationale for EPA to undertake additional off site ambient air sampling.

B. MSHA currently plans to conduct additional testing at the site (within the workplace) sometime in the future. The OSC will continue to monitor their plans and participate with them as necessary, based on their request for assistance.

C. Case pends.

Mike Zickler, OSC
US EPA Region III
Philadelphia, PA 19103

Polrep #4 and Final
Louisa Mine site
(Virginia Vermiculite Ltd.)
14093 Louisa Road
Route 22, P.O. Box 70
Louisa, VA 23093

Attn: RRC

Event: Removal Assessment

I. Situation: 1/31/03

A. Since late 1999, the Virginia Vermiculite Mine in Louisa, VA was one of the 24 sites in Region 3 that were under investigation by the EPA national task force resulting from the W. R. Grace mine in Libby, Montana and the asbestos exposure from its operations over the years. OSC Jarvala visited the Louisa facility in early 2000 to meet the manager, tour the facility and arrange for sampling in the future. In August 2000, the Mine Safety and Health Administration (MSHA), in response to an anonymous complaint allegedly from site employees, conducted a surprise sampling event at the Louisa mine, and after analysis of the samples reported high levels of asbestos fibers in several bulk samples, as well as positive fiber results from air samples taken from various locations in the workplace. Based on these sample results, MSHA was quoted in news articles as being concerned with worker safety and off site impacts from operations. MSHA also requested support from EPA during a phone call to the RA on 10/6/00. It should be noted that all previous sampling at this facility by MSHA and the facility itself resulted in non detectable levels of asbestos fibers.

II. Actions Taken:

A. Pursuant to a removal assessment conducted by OSC Zickler and the START contractor, and in conjunction with the protocols developed by Region 8 for evaluating off site impacts, samples of dust from nearby residential homes were obtained to screen for tremolite asbestos contamination. In addition, bulk samples from the road just outside the active mining area and at several waste disposal locations, and representative background dust and road samples were collected. Analytical results from those samples, which were taken on 12/4-6/00, have been received from the EMSL lab. They indicate non detection of asbestos fibers in any of the samples, based on PLM and TEM analyses. These results have been provided to the mine operator, MSHA, Louisa County officials and the individual residents. Based on the analytical results recently obtained from EMSL, no further sampling is planned by the OSC. Because no evidence exists of asbestos fibers accumulating outside the mine boundaries, there is no rationale for EPA to undertake additional off site ambient air sampling.

B. MSHA has taken samples from inside certain process locations, and from several individual plant employees/operators. MSHA may conduct additional testing at the site (within the workplace) sometime in the future. The OSC has indicated EPA will participate with them as necessary, based on any future request for assistance.

III. Future Plans:

A. There are no future actions planned by the OSC. Site files have been turned in to the RRC, and this assessment is considered completed.

B. This is the final polrep for this assessment.

Mike Zickler, OSC
US EPA Region III
Philadelphia, PA 19103

Resource Applications, Inc.
Engineers--Scientists--Prog. Mgrs.
7620 Whitepine Road, Richmond, VA 23237
Tel: (804) 279-0222 • Fax: (804) 279-0227

March 22, 2001

Rec'd 3/27/01 MZ

Mr. Michael Zickler
3HS31
U.S. Environmental Protection Agency Region III
1650 Arch Street
Philadelphia, PA 19103

Subject: **Louisa Mine Site Trip Report**
Louisa, Virginia
Technical Direction Document No. 03-00-11-003

Dear Mr. Zickler:

As required under TDD No. 03-00-11-003, please find enclosed one copy of the Trip Report for the Louisa Mine Site, located in Louisa, Louisa County, Virginia.

If you need additional copies of the report, please contact Resource Applications, Inc. Superfund Technical Assessment and Response Team (START) office, and we will be glad to provide you with them. Should you have any questions, please feel free to contact me at (804) 279-0222. Thank you.

Sincerely,

RESOURCE APPLICATIONS, INC.

[redacted]
Assistant Team Leader

cc: Ms. Joan Henry, w/o enclosure
[redacted] w/o enclosure
File

Enclosure: a/s

LOUISA MINE
LOUISA, VIRGINIA

Prepared for:

U.S. ENVIRONMENTAL PROTECTION AGENCY – REGION III
Emergency Planning and Response Branch
Philadelphia, PA

SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM
(Southern Area)

Contract No.:	68-S3-00-03
TDD No.:	03-00-11-003
Date Prepared:	February 19, 2001
EPA On-Scene Coordinator:	Michael Zickler
Telephone No.:	215-814-2792
Prepared by:	Resource Applications, Inc.
START Project Manager:	[redacted]
Telephone No.:	[redacted]

1.0 INTRODUCTION

On November 14, 2000, Resource Applications, Inc. START was directed by the U.S. Environmental Protection Agency (EPA) Region III On-Scene Coordinator (OSC) Michael Zickler to sample several areas in the vicinity of the Town of Louisa, Louisa County, Virginia. START was instructed to: compile and review background data, conduct multimedia sampling, conduct a windshield survey, document on-site activities, prepare site documentation files, prepare draft polreps, prepare a site health and safety plan, prepare a site sampling plan and prepare a trip report with photographic documentation.

2.0 BACKGROUND

The Louisa Mine Site is located east of the Town of Boswells Tavern, Louisa County, Virginia. Some of the roadbeds, driveways and homes between the Louisa Mine railroad loading area and the Virginia Vermiculite Mine were believed to have been contaminated with Asbestos. In these instances, the tailing wastes from the manufacturing facility were used to build driveways or roads. Also, according to information available, the Asbestos may have been dispersed as airborne particulate matter during the manufacturing process and as raw material was transported from the mine to the processing plant.

2.1 Site Location

The Virginia Vermiculite Mine is located north of Route 22 (Louisa Road), east of Route 15, in Louisa County, Virginia. The private residences are located on Route 22 between the Towns of Louisa and Boswells Tavern, Virginia (Figure 1-A, Site Location Map). The railroad loading area is located west of the intersection of Route 22 and Route 33, near the Town of Louisa (Figure 1-B, Site Location Map).

3.0 SITE ACTIVITIES

3.1 Sampling Activities

START collected a total of 42 samples; 37 dust samples and five (5) bulk samples. The 37 dust samples were collected from the residential homes with suspected accumulation of Asbestos dust or fibrous material. The 5 (five) bulk samples were collected from the roadside, the railroad loading area, and driveways. The samples were labeled, packed in accordance with START RAI standard operating procedures (SOP) and shipped to EMSL Analytical, (located at 107 Haddon Avenue in Westmont, NJ 08108) via Federal Express on December 19, 2000.

3.2.1 Site Activities Conducted on December 05, 2000

START members [redacted] collected a total of 28 samples; 27 dust samples and one (1) bulk sample. The 27 dust samples were collected utilizing an SKC pump with matched weight

cassettes. The bulk sample was collected utilizing a poly scoop and a clear glass 8-ounce wide-mouth jar. The samples collected included; one (1) bulk sample from the roadside of Route 22, five (5) dust samples from the [redacted] home, five (5) dust samples from the [redacted] home, seven (7) dust samples from the [redacted] home, five (5) dust samples from the [redacted] home, and five (5) dust samples from the [redacted] home. The samples were labeled, packed in accordance with START RAI standard operating procedure (SOP), and sent to EMSL Analytical in Westmont, New Jersey for analyses.

3.2.2 Site Activities Conducted on December 06, 2000

START members [redacted] collected a total of 14 samples; 10 dust samples and four (4) bulk samples. The 10 dust samples were collected utilizing an SKC pump with matched weighted cassettes. The four (4) bulk samples were collected utilizing plastic scoops and four (4) clear glass 8-ounce wide-mouth jars. The samples collected included; five (5) dust samples from the [redacted] home, one (1) bulk sample from the roadside of Jack Jouett Road, one (1) bulk sample from the driveway of the [redacted] home, two (2) bulk samples from the railroad loading area , and five (5) dust samples from the [redacted] home. The samples were labeled, packed in accordance with START RAI standard operating procedures (SOP), and sent to EMSL Analytical in Westmont, New Jersey for analyses.

4.0 ANALYTICAL DATA

Analytical results were received from the lab on January 2, 2001 and provided to the OSC on January 9, 2001. Analytical results for all bulk and dust sampling locations were below detection levels. Table 1 provides Sample Number, Sample Location, Sample Type and the Sample Results.

Table 1. Analytical Results, Louisa Mine Site, Louisa, VA.

Sample Number	Sample Location	Comments	Sample Type	Sample Result
120500-01	Road Sample	Route 22	Bulk	Non-detect
120500-02	Home # 1	[redacted]	Dust	Non-detect
120500-03	Home # 1	[redacted]	Dust	Non-detect
120500-04	Home # 1	[redacted]	Dust	Non-detect
120500-05	Home # 1	[redacted]	Dust	Non-detect
120500-06	Home # 1	[redacted]	Dust	Non-detect
120500-07	Home # 2	[redacted]	Dust	Non-detect
120500-08	Home # 2	[redacted]	Dust	Non-detect
120500-09	Home # 2	[redacted]	Dust	Non-detect

Table 1. Analytical Results, Louisa Mine Site, Louisa, VA. (Continued)

Sample Number	Sample Location	Comments	Sample Type	Sample Result
120500-10	Home # 2	[redacted]	Dust	Non-detect
120500-11	Home # 2	[redacted]	Dust	Non-detect
120500-12	Home # 3	[redacted]	Dust	Non-detect
120500-13	Home # 3	[redacted]	Dust	Non-detect
120500-14	Home # 3	[redacted]	Dust	Non-detect
120500-15	Home # 3	[redacted]	Dust	Non-detect
120500-16	Home # 3	[redacted]	Dust	Non-detect
120500-17	Home # 3	[redacted]	Dust	Non-detect
120500-18	Home # 3	[redacted]	Dust	Non-detect
120500-19	Home # 4	[redacted]	Dust	Non-detect
120500-20	Home # 4	[redacted]	Dust	Non-detect
120500-21	Home # 4	[redacted]	Dust	Non-detect
120500-22	Home # 4	[redacted]	Dust	Non-detect
120500-23	Home # 4	[redacted]	Dust	Non-detect
120500-24	Home # 5	[redacted]	Dust	Non-detect
120500-25	Home # 5	[redacted]	Dust	Non-detect
120500-26	Home # 5	[redacted]	Dust	Non-detect
120500-27	Home # 5	[redacted]	Dust	Non-detect
120500-28	Home # 5	[redacted]	Dust	Non-detect
120600-01	Home # 6	[redacted]	Dust	Non-detect
120600-2	Home # 6	[redacted]	Dust	Non-detect
120600-3	Home # 6	[redacted]	Dust	Non-detect
120600-4	Home # 6	[redacted]	Dust	Non-detect
120600-5	Home # 6	[redacted]	Dust	Non-detect
120600-6	Road Sample	Jack Jouett Rd	Bulk	Non-detect
120600-7	Driveway	[redacted]y	Bulk	Non-detect
120600-8	Load Area	Rail Car Load Area	Bulk	Non-detect

Table 1. Analytical Results, Louisa Mine Site, Louisa, VA. (Continued)

Sample Number	Sample Location	Comments	Sample Type	Sample Result
120600-9	Load Area	Rail Car Load Area	Bulk	Non-detect
120600-10	Home # 7	[redacted]	Dust	Non-detect
120600-11	Home # 7	[redacted]	Dust	Non-detect
120600-12	Home # 7	[redacted]	Dust	Non-detect
120600-13	Home # 7	[redacted]	Dust	Non-detect
120600-14	Home # 7	[redacted]	Dust	Non-detect

5.0 REFERENCES

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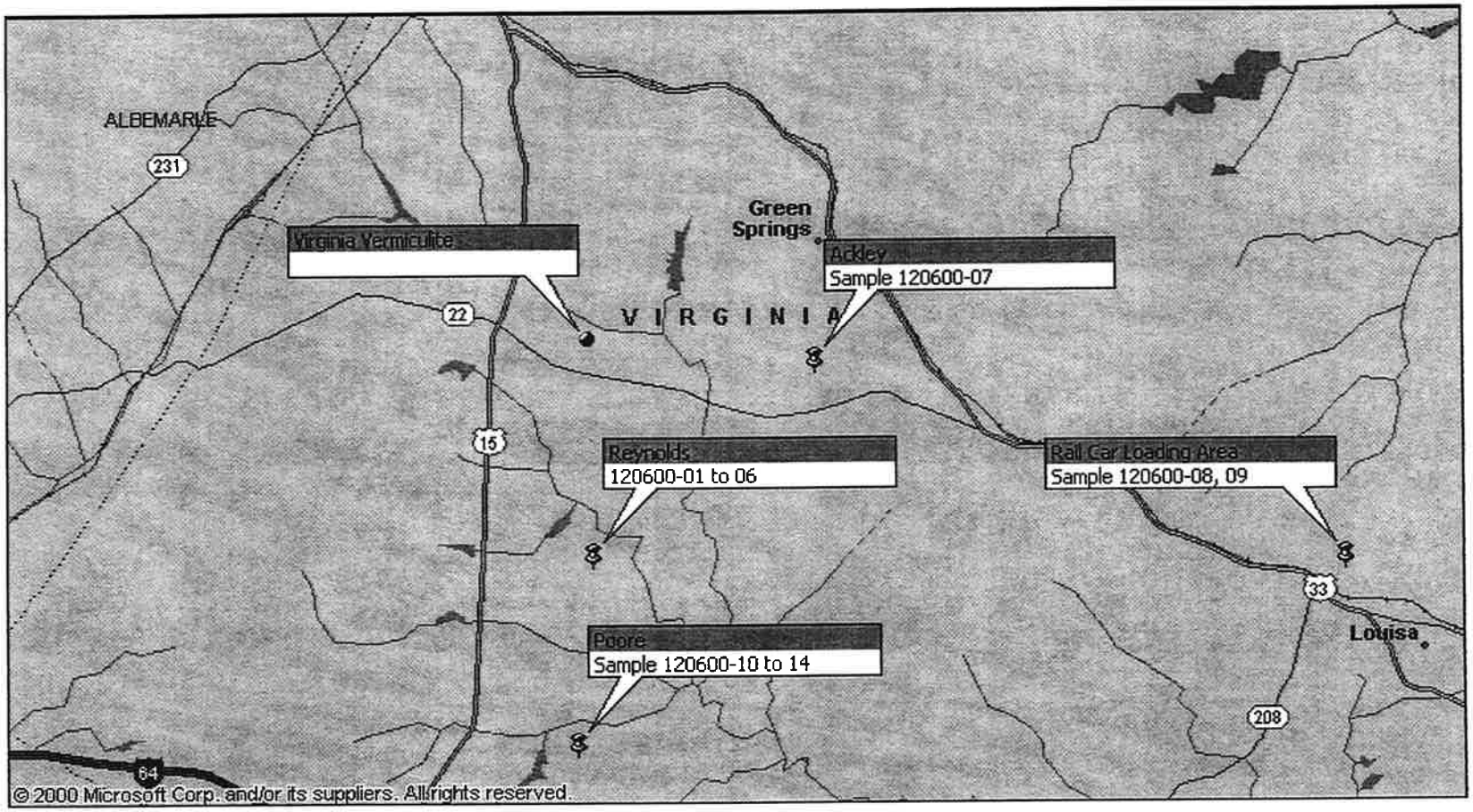
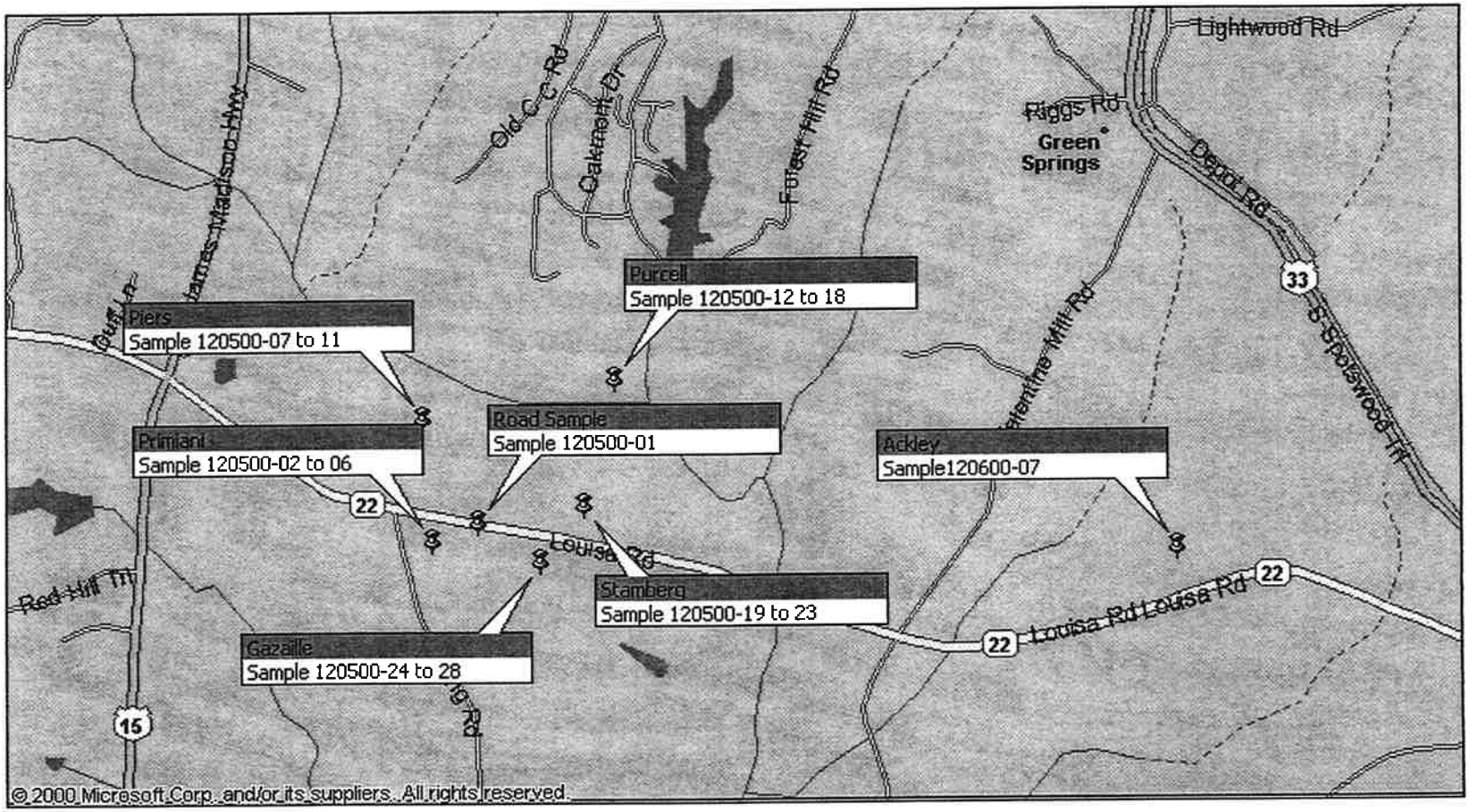


	START (Southern Area) Resource Applications, Inc. 7620 Whitepine Rd. Richmond, VA 23237	Figure 1-A Site Sampling Plan Louisa Mine Site	TDD # 03-00-11-003	Approved By: [redacted] _____



	START (Southern Area) Resource Applications, Inc. 7620 Whitepine Rd. Richmond, VA 23237	Figure 1-B Site Sampling Plan Louisa Mine Site	TDD # 03-00-11-003	Approved By: [redacted]

EMSL Analytical, Inc.
107 Haddon Ave., Westmont, NJ 08108
Phone (856) 858-4800 Fax. (856) 858-4960 Email. asiegel@EMSL.com

Attn: [redacted]
Resource Applications Inc
9281 Old Keene Mill Rd
Burke, VA 22015
Fax: (703) 644-7143 Phone: 703-644-0401
Project: #1031072/LOUISA MINING

Customer ID: REAP50
Customer PO:
Received 12/20/00 11:45 AM
EMSL Order: 040021452
EMSL Project ID:
Analysis Date: 12/26/00

Polarized Light Microscopy (PLM) Performed by NIOSH Method 9002, Issue 2

				Non-Asbestos			Asbestos
Sample	Location	Appearance	Treatment	% Fibrous		% Non-Fibrous	% Type
01A 040021452-0001	ROAD SIDE #1	Gray/Tan Non-Fibrous Heterogeneous	Teased	<1% Cellulose <1% Glass		100% Non-fibrous (other)	None Detected
08A 040021452-0002	ROADSIDE #2	Gray/Tan/Brown Fibrous Heterogeneous	Teased	10% Cellulose <1% Glass <1% Synthetic		90% Non-fibrous (other)	None Detected
07A 040021452-0003	DRIVEWAY #1	Gray/Tan Non-Fibrous Heterogeneous	Teased	<1% Cellulose		100% Non-fibrous (other)	None Detected
08A 040021452-0004	RR#1	Brown/Gold/Tan Non-Fibrous Heterogeneous	Teased	<1% Cellulose		100% Non-fibrous (other)	None Detected
09A 040021452-0005	RR#1	Brown/Gold/Black Non-Fibrous Heterogeneous	Teased	3% Cellulose <1% Synthetic		97% Non-fibrous (other)	None Detected

Analyst(s)
[redacted]

[redacted]
or other approved signatory

Disclaimers: PLM has been known to miss asbestos in a small percentage of samples which contain asbestos. Thus negative PLM results cannot be guaranteed. EMSL suggests that samples reported as <1% or none detected be tested with either SEM or TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL. The above test must not be used by the client to claim product endorsement by NVLAP nor any agency of the United States Government. Laboratory is not responsible for the accuracy of results when requested to physically separate and analyze layered samples.

EMSL Analytical, Inc.
107 Haddon Ave., Westmont, NJ 08108
Phone: (856) 858-4800 Fax: (856) 858-4960 Email: [redacted]@EMSL.com

EMSL

Attn: [redacted]
Resource Applications Inc
9291 Old Keene Mill Rd
Burke, VA 22015
Fax: (703) 644-7143 Phone: 703-644-0401
Project: #1031072/LOUISA MINING

Customer ID: REAP50
Customer PO:
Received: 12/20/00 11:45 AM
EMSL Order: 040021442
EMSL Project ID:
Analysis Date:

Asbestos Analysis via Transmission Electron Microscopy ASTM Method D5755-95

SAMPLE ID	AREA SAMPLED (cm^2)	ASBESTOS TYPE	ASBESTOS STRUCTURES	Sensitivity (str/cm^2)	CONCENTRATION (str/cm^2)	COMMENTS
02A 040021442-0001	100	None Detected	<4	401.550	<1606.200	
03A 040021442-0002	100	None Detected	<4	401.550	<1606.200	
04A 040021442-0003	100	None Detected	<4	401.550	<1606.200	
05A 040021442-0004	100	None Detected	<4	401.550	<1606.200	
06A 040021442-0005	100	None Detected	<4	401.550	<1606.200	
07A 040021442-0006	100	None Detected	<4	401.550	<1606.200	
08A 040021442-0007	100	None Detected	<4	401.550	<1606.200	
09A 040021442-0008	100	None Detected	<4	401.550	<1606.200	
10A 040021442-0009	100	None Detected	<4	401.550	<1606.200	

[redacted]
Analyst

[redacted]
or other approved signatory

TEMMicro-1

EMSL Analytical, Inc.
107 Haddon Ave , Westmont, NJ 08108
Phone (856) 858-4800 Fax: (856) 858-4960 Email: ssiegel@EMSL.com

Attn: [redacted]
Resource Applications Inc
9291 Old Keene Mill Rd
Burke, VA 22015
Fax: (703) 644-7143 Phone: 703-644-0401
Project: #1031072/LOUISA MINING

Customer ID: REAP50
Customer PO:
Received: 12/20/00 11:45 AM
EMSL Order: 040021442
EMSL Project ID:
Analysis Date:

Asbestos Analysis via Transmission Electron Microscopy ASTM Method D5755-95

SAMPLE ID	AREA SAMPLED (cm²)	ASBESTOS TYPE	ASBESTOS STRUCTURES	Sensitivity (str/cm²)	CONCENTRATION (str/cm²)	COMMENTS
11A 040021442-0010	100	None Detected	<4	401,550	<1606,200	
12A 040021442-0011	100	None Detected	<4	401,550	<1606,200	
13A 040021442-0012	100	None Detected	<4	401,550	<1606,200	
14A 040021442-0013	100	None Detected	<4	401,550	<1606,200	
15A 040021442-0014	100	None Detected	<4	401,550	<1606 200	
16A 040021442-0015	100	None Detected	<4	401,550	<1606,200	
17A 040021442-0016	100	None Detected	<4	401,550	<1606,200	
18A 040021442-0017	100	None Detected	<4	401,550	<1606,200	
19A 040021442-0018	100	None Detected	<4	401,550	<1606,200	

[redacted]
Analyst

[redacted]
or other approved signatory

TEMMicro-1

EMSL Analytical, Inc.
107 Haddon Ave Westmont, NJ 08108
Phone: (856) 858-4800 Fax: (856) 858-4860 Email: spiegel@EMSL.com

EMSL

Attn: [redacted]
Resource Applications Inc
9291 Old Keene Mill Rd
Burke, VA 22015
Fax: (703) 644-7143 Phone: 703-644-0401
Project: #1031072/LOUISA MINING

Customer ID: REAP50
Customer PO:
Received: 12/20/00 11:45 AM
EMSL Order: 040021442
EMSL Project ID:
Analysis Date:

Asbestos Analysis via Transmission Electron Microscopy ASTM Method D5755-95

SAMPLE ID	AREA SAMPLED (cm^2)	ASBESTOS TYPE	ASBESTOS STRUCTURES	Sensitivity (str/cm^2)	CONCENTRATION (str/cm^2)	COMMENTS
20A 040021442-0019	100	None Detected	<4	401,550	<1606,200	
21A 040021442-0020	100	None Detected	<4	401,550	<1606,200	
22A 040021442-0021	100	None Detected	<4	401,550	<1606,200	
23A 040021442-0022	100	None Detected	<4	401,550	<1606,200	
24A 040021442-0023	100	None Detected	<4	401,550	<1606 200	
25A 040021442-0024	100	None Detected	<4	401,550	<1606,200	
26A 040021442-0025	100	None Detected	<4	401,550	<1606,200	
27A 040021442-0026	100	None Detected	<4	401,550	<1606,200	
28A 040021442-0027	100	None Detected	<4	401,550	<1606,200	

[redacted]
Analyst

[redacted]
or other approved signatory

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Phone: (856) 858-4800 Fax: (856) 858-4960 Email: [redacted]@EMSL.com

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Asbestos Analysis via Transmission Electron Microscopy ASTM Method D5755-95

SAMPLE ID	AREA SAMPLED (cm^2)	ASBESTOS TYPE	ASBESTOS STRUCTURES	Sensitivity (str/cm^2)	CONCENTRATION (str/cm^2)	COMMENTS
01A 040021442-0028	100	None Detected	<4	401,550	<1606,200	
02A 040021442-0029	100	None Detected	<4	401,550	<1606,200	
03A 040021442-0030	100	None Detected	<4	401,550	<1606,200	
04A 040021442-0031	100	None Detected	<4	401,550	<1606,200	
05A 040021442-0032	100	None Detected	<4	401,550	<1606,200	
10A 040021442-0033	100	None Detected	<4	401,550	<1606,200	
11A 040021442-0034	100	None Detected	<4	401,550	<1606,200	
12A 040021442-0035	100	None Detected	<4	401,550	<1606,200	
13A 040021442-0036	100	None Detected	<4	401,550	<1606,200	

[redacted]
Analyst

[redacted]
or other approved signatory

TEMMicro-1

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107 Haddon Ave , Westmont, NJ 08108
Phone (856) 858-4800 Fax (856) 858-4960 Email sslegal@EMSL.com

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Resource Applications Inc
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Fax: (703) 644-7143 Phone: 703-644-0401
Project: #1031072/LOUISA MINING

Customer ID: REAP50
Customer PO:
Received: 12/20/00 11:45 AM
EMSL Order: 040021442
EMSL Project ID:
Analysis Date:

Asbestos Analysis via Transmission Electron Microscopy ASTM Method D5755-95

SAMPLE ID	AREA SAMPLED (cm^2)	ASBESTOS TYPE	ASBESTOS STRUCTURES	Sensitivity (str/cm^2)	CONCENTRATION (str/cm^2)	COMMENTS
14A	100	None Detected	<4	401.550	<1606.200	
040021442-0037						

[redacted]

[redacted]
or other approved signatory

TEMMicro-1

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 3
Curtis Bldg., 6th & Walnut Sts.
Philadelphia, Pennsylvania 19106

CHAIN OF CUSTODY RECORD #3 of 3

PROJ. NO.: 1031072
PROJECT NAME: LOUISA MINING
SAMPLERS: (Signature) [redacted]

STA. NO	DATE	TIME	COMP	GRAB	STATION LOCATION	NO OF CONTAINERS	METHOD ASTM D5755-95 PLM + TEM							REMARKS
01A	12/6	1007		X	HOUSE #6 (BG)	1	X							
02A	12/6	1020		X	HOUSE #6 (BG)	1	X							
03A	12/6	1029		X	HOUSE #6 (BG)	1	X							
04A	12/6	1038		X	HOUSE #6 (BG)	1	X							
05A	12/6	1047		X	HOUSE #6 (BG)	1	X							
06A	12/6	1110		X	ROADSIDE #2	1		X						
07A	12/6	1140		X	~~RR #1~~ DRIVEWAY #1	1		X						
08A	12/6	1200		X	RR #1	1		X						
09A	12/6	1207		X	~~RR #2~~ #1	1		X						
10A	12/6	1350		X	HOUSE #7 (BG)	1	X							
11A	12/6	1357		X	HOUSE #7 (BG)	1	X							
12A	12/6	1408		X	HOUSE #7 (BG)	1	X							
13A	12/6	1417		X	HOUSE #7 (BG)	1	X							
14A	12/6	1426		X	HOUSE #7 (BG)	1	X							

00 DEC 20 AM 11:45

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[redacted]	12/19/00 1100	824154509621 FEDEX			
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks: TURNAROUND OF 6-10 DAYS HOLD SAMPLES 90 DAYS LOOKING FOR TREMOLITE	

Distribution: Original Accompanies Shipment; Copy to Coordinator Field Files

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 3
Curtis Bldg., 6th & Walnut Sts.
Philadelphia, Pennsylvania 19106

CHAIN OF CUSTODY RECORD #1 OF 3

TEM Analysis Done

PROJ. NO.	PROJECT NAME
1031072	LOUISA MINING

SAMPLERS: (Signature) [redacted]

STA. NO.	DATE	TIME	COMP	GRAB	STATION LOCATION	NO OF CONTAINERS	METHOD AHERA 40 CFR PART 763 APPENDIX A TO SUBPART E	METHOD EPA/600/R-93/116 PLM + TEM	REMARKS
01A	12/5	925		X	ROAD SIDE #1	1		X	All areas 100 cm² (HHD 21M) as per Chris Voss 12/27/00 12:15
02A	12/5	955		X	HOUSE #1	1	X		
03A	12/5	1012		X	HOUSE #1	1	X		
04A	12/5	1029		X	HOUSE #1	1	X		
05A	12/5	1044		X	HOUSE #1	1	X		
06A	12/5	1057		X	HOUSE #1	1	X		
07A	12/5	1135		X	HOUSE #2	1	X		
08A	12/5	1145		X	HOUSE #2	1	X		
09A	12/5	1158		X	HOUSE #2	1	X		
10A	12/5	1212		X	HOUSE #2	1	X		
11A	12/5	1220		X	HOUSE #2	1	X		
12A	12/5	1409		X	HOUSE #3	1	X		
13A	12/5	1430		X	HOUSE #3	1	X		
14A	12/5	1440		X	HOUSE #3	1	X		
15A	12/5	1452		X	HOUSE #3	1	X		

00 DEC 20 AM 11:45

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[redacted]	12/19/00 1100	824154509621 FEDEX			[redacted]
Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks TURNAROUND OF 6-10 DAYS HOLD SAMPLES 90 DAYS LOOKING FOR TREMOLITE	

Distribution: Original Accompanies Shipment, Copy to Coordinator Field Files

ENVIRONMENTAL PROTECTION AGENCY
Office of Enforcement

REGION 3
Curtis Bldg., 6th & Walnut Sts.
Philadelphia, Pennsylvania 19106

CHAIN OF CUSTODY RECORD #2 OF 3

PROJ. NO.: 1031072
PROJECT NAME: LOUISA MINING
SAMPLERS: (Signature) [redacted]

STA. NO.	DATE	TIME	COMP.	GRAB	STATION LOCATION	NO. OF CONTAINERS	METHOD ASTM D5755-95 PLM + TEM	REMARKS
16A	12/5	1501		X	HOUSE #3	1	X	
17A	12/5	1518		X	HOUSE #3	1	X	
18A	12/5	1523		X	HOUSE #3	1	X	
19A	12/5	1547		X	HOUSE #4	1	X	
20A	12/5	1556		X	HOUSE #4	1	X	
21A	12/5	1607		X	HOUSE #4	1	X	
22A	12/5	1617		X	HOUSE #4	1	X	
23A	12/5	1626		X	HOUSE #4	1	X	
24A	12/5	1653		X	HOUSE #5	1	X	
25A	12/5	1704		X	HOUSE #5	1	X	
26A	12/5	1720		X	HOUSE #5	1	X	
27A	12/5	1730		X	HOUSE #5	1	X	
28A	12/5	1735		X	HOUSE #5	1	X	

00 DEC 20 AM 11:45

Relinquished by: (Signature)	Date / Time	Received by: (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
[redacted]	12/19/00 1100	824154509621 FEDEX			
Relinquished by: (Signature)	Date / Time	Received by (Signature)	Relinquished by: (Signature)	Date / Time	Received by: (Signature)
Relinquished by: (Signature)	Date / Time	Received for Laboratory by: (Signature)	Date / Time	Remarks	
					TURNAROUND OF 6-10 DAYS HOLD SAMPLES 90 DAYS LOOKING FOR TREMOLITE

Distribution: Original Accompanies Shipment, Copy to Coordinator Field Files